

Electronic Health Records

**An Assessment of  
Maryland Nursing Homes**

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# Commissioners

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# Preface

Nationwide initiatives are under way to expand the use of electronic health records (EHR). To date, nursing homes have not been deeply involved in the efforts to broaden EHR adoption. Many reasons often hinder the efforts to establish EHRs in the long term care environment, including meeting the needs of multiple providers in a nursing home, the physical structure of a facility, the costs of implementation, and obtaining support for the technology.<sup>1</sup> Maryland is home to roughly 235 nursing homes, with more than 77 percent affiliated with either a group, hospital, integrated system, or a regional chain. In June 2009, the Maryland Health Care Commission (MHCC) conducted an assessment of EHR planning and adoption activities among unaffiliated, or independent, nursing homes statewide. Nursing homes with an affiliation to an organization were excluded from the assessment as they tend to be more technologically advanced and have greater access to funding for technology adoption. Approximately 51 independent nursing homes responded to the MHCC's request for information regarding their EHR planning and adoption activities.

The *MHCC EHR Planning and Adoption Assessment* (assessment) questions were aimed at determining the current level of implementation among independent nursing homes. Many of these questions have been used in similar surveys conducted by other states to assess implementation.<sup>2,3</sup> The questions focused on four areas: computerized functions, EHR implementation, adoption barriers, and importance. Independent nursing homes overwhelmingly express concern about the cost of the technology, lack of technical staff, problems integrating EHRs with existing legacy systems, and difficulty in training qualified staff as the leading barriers to adoption.

In general, the rate of EHR planning and adoption activity among independent nursing homes statewide is fairly consistent with the level of activity in other states. Findings from the assessment indicate that almost all independent nursing homes use technology to support activities related to billing. Nearly half use technology for limited clinical purposes, such as resident assessments, progress notes, and care planning. Almost one-third have taken steps to assess how they can increase efficiencies in their facility and improve clinical care through EHRs. The majority of the independent nursing homes who responded to the assessment consider EHRs an important technology to adopt.

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<sup>1</sup> G. Brandeis, M. Hogan, M. Murphy, and S. Murray, "Electronic Health Record Implementation in Community Nursing Homes," *Journal of the American Medical Directors Association*, Volume 8, Issue 1, 2007, pages 31-34.

<sup>2</sup> American Health Care Association (AHCA) and the National Center for Assisted Living (NCAL), *A Snap-Shot of the Use of Health Information Technology in Long Term Care*, December 2006. Available at: [http://www.amda.com/news.othernews/2007/ahca\\_hit\\_longtermcarewhitepage1206.pdf](http://www.amda.com/news.othernews/2007/ahca_hit_longtermcarewhitepage1206.pdf).

<sup>3</sup> California Health Care Foundation, *Health Information Technology: Are Long Term Care Providers Ready?*, April 2007. Available at: <http://www.chcf.org/documents/chronicdisease/HITNursingHomeReadiness.pdf>.

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# Findings

## Computerized Functions

Nearly all independent nursing homes use computers to support billing and other related administrative functions for reimbursement and to meet certification requirements. Maryland is comparable with the nation as approximately 96 percent of independent nursing homes report using technology to support billing as well as financial and other related activities.<sup>4</sup> Almost half of nursing homes indicate they use technology for clinical applications such as resident assessments, progress notes, and care planning. Similar studies from across the nation suggest that technology used in clinical applications ranges from around 18 to 47 percent.<sup>5</sup> Nearly 24 percent of independent nursing homes statewide report using EHRs for clinical charting. This is fairly consistent with other states that have assessed clinical charting in nursing homes.<sup>6</sup> Medication administration is reported nationally at roughly 38 percent.<sup>7</sup> About 12 percent of independent nursing homes in the state report using technology for medication administration.

Technology Deployment	
Technology	Count
Use business or administrative functions to support state and federal payment and certification requirement systems	49
Clinical HIT applications ( <i>i.e., assessments, progress note documentation, medication and treatment, care planning, and decision support tools</i> )	25
Clinical charting applications only ( <i>i.e., assessments, progress notes</i> )	12
Medication administration ( <i>i.e., electronic medication administration record, bar code medication administration</i> )	6

## Electronic Health Record Implementation

About 26 percent of independent nursing homes in Maryland report having EHRs that are either fully or partially implemented in clinical care. Maryland trails the nation in EHR adoption, which is

<sup>4</sup> U.S. Department of Health and Human Services, Literature Review and Synthesis: *Existing Surveys on Health Information Technology, Including Surveys on Health Information Technology in Nursing Homes and Home Health*, February 2009.

Available at: <http://aspe.hhs.gov/daltcp/reports/2009/hitlitrev.htm>.

<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

reported at nearly 47 percent.<sup>8</sup> States that reported their progress in adopting EHRs average about 19 percent.<sup>9</sup> Roughly 31 percent of independent nursing homes statewide report activity related to adopting an EHR. Almost 39 percent of independent nursing homes have begun to plan and evaluate EHR products. Nearly 8 percent of nursing homes indicated that they are in the system selection stage. Maryland trails the combined average of states that reported planning activities by nearly 10 percent. Less than one-quarter of independent nursing homes have not begun to assess EHRs. By comparison, roughly 20 percent of nursing homes in other states that reported on the same measure noted a lack of an EHR implementation plan among nursing homes.<sup>10</sup>

EHR Adoption Activities	
Activities	Count
Implemented ( <i>i.e., fully or partially implemented, or in progress</i> )	13
System under development	3
System selection stage	4
Planning stage ( <i>i.e., timeline established</i> )	3
Gathering information ( <i>i.e., no timeline established</i> )	17
Have not started	11

## Barriers to EHR Adoption

Independent nursing homes consistently identified funding issues as the leading barrier to adopting EHRs. Roughly 65 percent of independent nursing homes noted reimbursement as a barrier to EHR adoption. Approximately 76 percent of independent nursing homes reported monetary challenges affected their adoption decision. States conducting comparable assessments identified a similar level of impediment for most nursing homes.<sup>11</sup> Independent nursing homes are also concerned about the lack of technical staff, at nearly 57 percent. The lack of integration with other systems is a shared concern among roughly 80 percent of the independent nursing homes in Maryland. Overall, almost 75 percent report the lack of technical training as a concern for EHR adoption, with more than 27 percent especially concerned.

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<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

Barriers to Adoption				
Barriers	Very Significant	Slightly Significant	Not Significant	N/A
Lack of reimbursement for using EHRs	25	8	13	5
Lack of capital resources	23	16	9	3
Lack of professional technical staff	9	20	18	4
EHR product is not integrated with other systems	17	24	8	2
Staff lacks computer skills	14	24	10	3

## EHR Importance and Planning

By degree of importance, almost 18 percent of independent nursing homes in Maryland that view EHR adoption as very important have already implemented an EHR. Nearly 12 percent plan to adopt EHRs this year and about another 25 percent plan to implement an EHR in less than four years. Almost 6 percent of independent nursing homes that consider adopting an EHR as slightly significant have already implemented the technology. About 19 percent that view EHR adoption as slightly important are undecided. Overall, most independent nursing homes statewide view EHR adoption as important, while roughly 6 percent view EHRs as not having a major role in their organization's priorities.

EHR Planning						
Level of Importance	Already Adopted	Current Year	Next Year	Within 3 Years	Within 4 Years	Undecided
Very Important	9	6	4	9	-	-
Slightly Important	3	-	-	4	2	10
Not Important	-	-	-	1	-	3

## Remarks

The *MHCC EHR Planning and Adoption Assessment* questions establishes a baseline on the extent of EHR adoption by independent nursing homes in Maryland. EHR adoption in independent nursing homes is an essential part of improving the overall efficiencies in health care delivery, enhancing the quality of care, and reducing costs. The value of EHRs in general has particular importance to nursing homes in providing continuity of care to those patients that transfer in and out of acute care and nursing home settings.<sup>12</sup> Most EHR adoption efforts presently focus on hospitals and physicians. The *American Recovery and Reinvestment Act of 2009* includes incentive funding for EHR adoption but excludes nursing homes from the list of providers eligible to receive incentive funding.<sup>13</sup> Widespread adoption of EHRs in nursing homes would improve care and eventually decrease costs. Seamless care between consultants and primary care providers would also occur since each would have access to the other's clinical information, minimizing potential errors due to lost or misdirected information.

Implementing an EHR is one of the largest and most complex technology projects an independent nursing home can undertake. It requires an intense focus on cooperation among the workforce and coordination with the medical staff. The decision to adopt this technology presents an opportunity to rethink and redesign patient care workflows. The benefits of EHR adoption for independent nursing homes will vary by each site. The convenience of accessing and adding to the patient's complete health record, combined with the confidence that comes with automated clinical decision support, help to make EHR adoption for independent nursing homes an indispensable technology requirement of the future.

The MHCC intends to work with independent nursing homes to explore opportunities to advance EHR adoption. Over the next six months, the MHCC plans to convene meetings with independent nursing home administrators to explore opportunities to collaborate on solutions for EHR adoption. Among other things, the potential for collaboration exists around bulk purchasing of EHR software, and the adoption of EHRs through a management services organization (MSO). EHR vendors are generally more willing to reduce the unit cost of software when selling to large groups of purchasers. MSOs provide an alternative to EHR adoption where the technology is maintained off-site, and offers extended hours of support, training, data warehousing, and access to the data where access to the Internet exists.<sup>14</sup>

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<sup>12</sup> American Health Information Management Association (AHIMA). *A Road Map for Long Term Care 2008-2010 (HIT) Summit*, (2008). Available at: [http://www.ahima.org/meetings/ltc/documents/LTCSummitRoadmap\\_Final\\_2008-03-17.pdf](http://www.ahima.org/meetings/ltc/documents/LTCSummitRoadmap_Final_2008-03-17.pdf).

<sup>13</sup> Open Congress for the 111<sup>th</sup> United States Congress, *H.R.1 – American Recovery and Reinvestment Act of 2009*. Available at: <http://www.opencongress.org/bill/111-h1/show>.

<sup>14</sup> A shared services offering is when a nursing home offers its products to others.





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